Small Signal Product

350 mW High Speed SMD Switching Diode

FEATURES

- Designed for mounting on small surface
- Extremely thin / leadless package
- High mounting capability, strong surage with stand, high reliability
- Pb free version and RoHS compliant
- Halogen free



1005

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

- Case: 1005
- Terminal: Gold plated, solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Weight: 6 mg (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)				
PARAMETER		SYMBOL	VALUE	UNIT
Power Dissipation		P_D	350	mW
Non-Repetitive Peak Reverse Voltage		V_{RSM}	100	V
Repetitive Peak Reverse Voltage		V_{RRM}	75	V
Repetitive Peak Forward Current		I_{FRM}	300	mA
Mean Forward Current		I_O	150	mA
Non-Repetitive Peak Forward Surge Current	Pulse Width=1μs Pulse Width=1ms	I_{FSM}	4.0 1.0	A
Thermal Resistance	(Note 1)	$R_{\theta JA}$	500	°C/W
Junction and Storage Temperature Range		T_J , T_{STG}	-40 to +125	°C

PARAMETER		SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	(Note 2)	$V_{(BR)}$	-	75	V
Forward Voltage	I_F=50mA	V_F	-	1.0	V
Reverse Leakage Current	V_R=20V	I_R	-	25	nA
	V_R=75V		-	2.5	μA
Junction Capacitance	V_R=0, f=1.0MHz	C_J		4.0	pF
Reverse Recovery Time	(Note 3)	t_{rr}		4	ns

Note 1: Valid provided that electrodes are kept at ambient temperature

Note 2: Test condition: I_R=100μA

Note 3: Test condition: I_F=I_R=30mA, R_L=100Ω, I_{RR}=3mA

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

Fig. 1 Typical Forward Characteristics

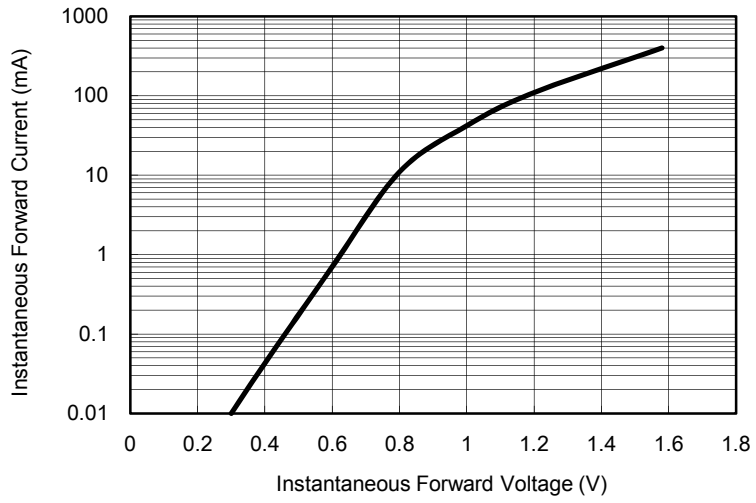


Fig. 2 Reverse Current VS. Reverse Voltage

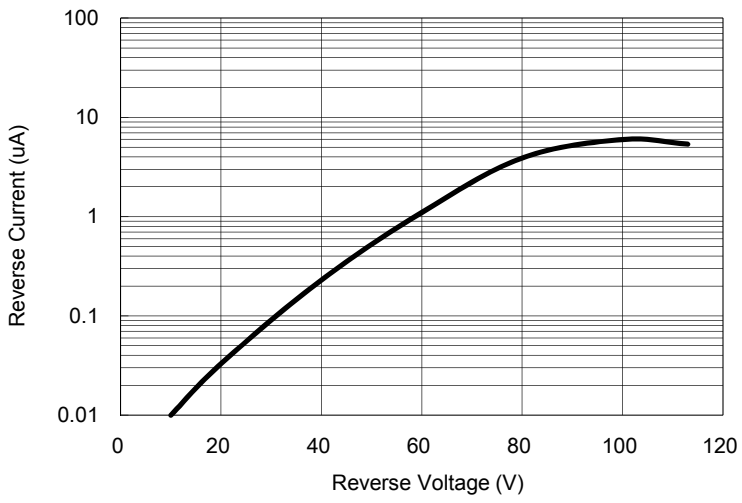


Fig. 3 Admissible Power Dissipation Curve

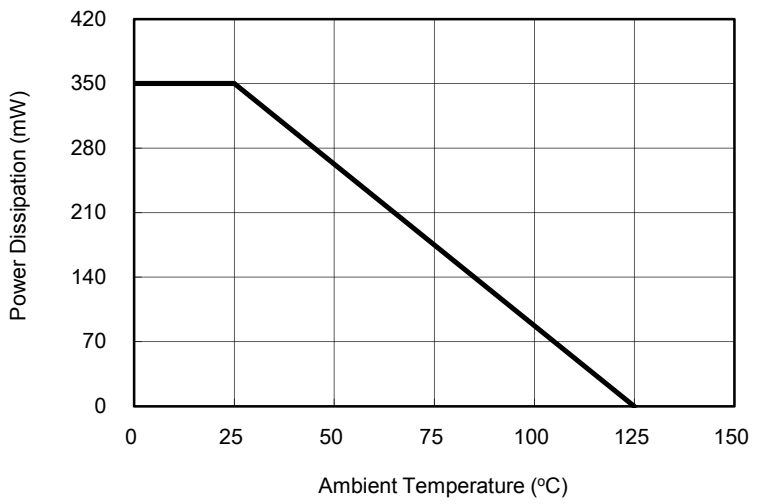


Fig. 4 Typical Junction Capacitance

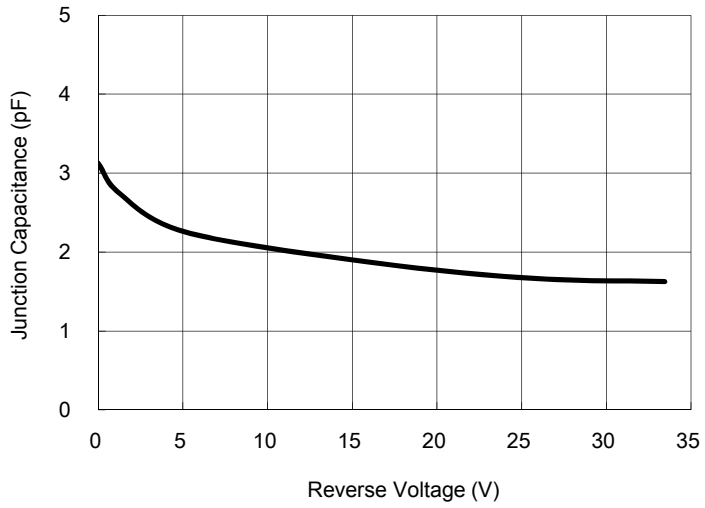
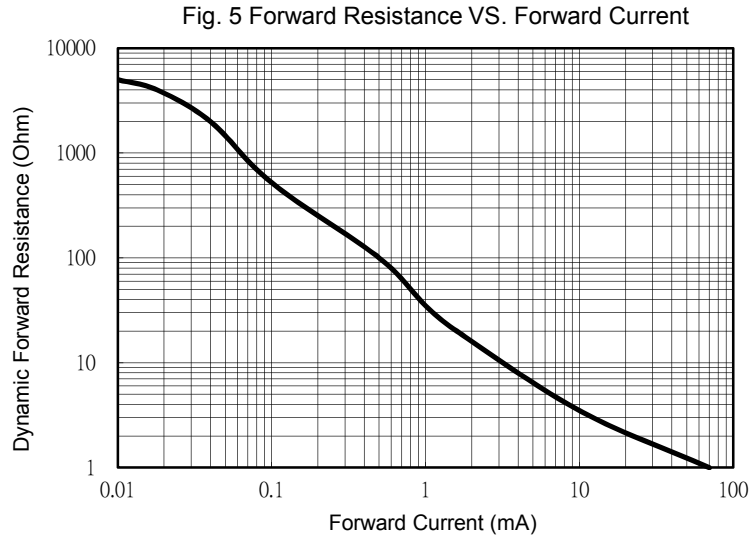


Fig. 5 Forward Resistance VS. Forward Current



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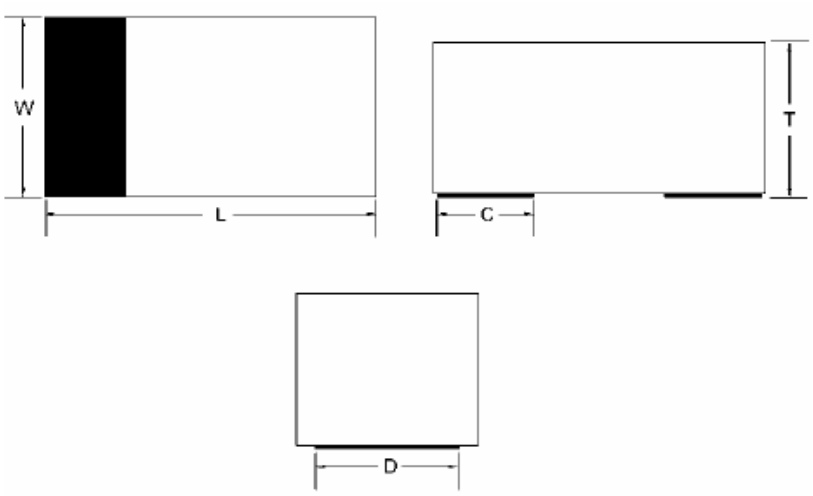
ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TS4148	-xx (Note 1)	RW	G	1005	4K / 7" Reel

Note 1: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TS4148 RWG	TS4148		RW	G	Multiple manufacture source Green compound
TS4148-F0 RWG	TS4148	-F0	RW	G	Defined manufacture source Green compound

PACKAGE OUTLINE DIMENSION

1005



DIM.	Unit (mm)			Unit (inch)		
	Min	Typ	Max	Min	Typ	Max
L	2.40	-	2.60	0.094	-	0.102
W	1.10	-	1.30	0.043	-	0.051
T	0.70	-	0.90	0.028	-	0.035
C	-	0.50	-	-	0.020	-
D	-	1.00	-	-	0.039	-

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